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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/725,259	12/01/2003	Leo W. Spychalla	10413US01	2950

7590 05/26/2005

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EXAMINER	
PAPE, ZACHARY	

ART UNIT	PAPER NUMBER
2835	

DATE MAILED: 05/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/725,259	SPYCHALLA, LEO W.	
	Examiner	Art Unit	
	Zachary M. Pape	2835	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *19 April 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *01 December 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Response to Amendment

The following office action is made in response to the remarks files 4/19/2005.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 18-20 rejected under 35 U.S.C. 102(b) as being anticipated by Lu et al. (Patent # 6,317,317). With respect to claim 18, Lu et al. teaches the use of a housing (Fig 1, 10, 30) and of a data storage cartridge (Fig 1, 20) configured for use in an automated library system, the housing defining an access window. Placing the hard drive (20) within the housing, the hard drive including at least one electrical connection point (22 – Column 2, Lines 18-22) and aligning the at least one electrical connection point relative to the access window in at least one of an X-direction extending substantially parallel to a width of the access window and a Y-direction extending substantially parallel to a length of the access window (as illustrated in assembled figure 3 showing electrical connection 22 sitting within the window), wherein the step of aligning the at least one electrical connection point relative to the access window positions the at least one electrical connection point to be accessible from a position external to the data storage cartridge via the access window (as illustrated in Fig 3

showing the electrical connection 22 available for connection to external connector 62 – Column 2, Lines 52-56).

With respect to claims 19-20, Lu et al. discloses that the hard disc (Fig 1, 20) be placed within the housing (Fig 1, 10, 30) such that the electrical connector (Fig 3, 22) be aligned in the X Y, and Z-directions to allow the connector to align with the window (and subsequently attach to an external connector 62).

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-17 rejected under 35 U.S.C. 103(a) as being unpatentable over Lu et al. (Patent # 6,317,317) in view of Crockett (Patent # 6,061,231). With respect to claim 1, Lu et al. teaches a housing (Fig 1, 10, 30) defining an interior cavity (Space in which hard disk drive 20 is placed), an access window (as shown in Fig 1) and a hard drive (Fig 1, 20) maintained within the interior cavity, the hard drive having at least one electrical connection point (22). Lu et al. fails to teach the use of alignment features.

Crockett teaches the use of at least one alignment feature (Fig 1, 20) wherein the at least one alignment feature is configured to interact with a printed circuit board (Fig 1, 22) thereby positioning the display assembly (10) within the housing. (Column 3, Lines 28-30). It would have been obvious to one of ordinary skill in the art at the time the

invention was made to combine the housing and hard drive of Lu et al. with the alignment features of Crockett such that the hard drive is capable of being at least partially aligned with the at least one electrical connector within the access window. The alignment features of Crockett allows the hard drive of Lu et al. to remain elevated from the housing reducing the risk of damage to the drive.

With respect to claim 2, Crockett further discloses that the printed circuit board (Fig 1, 22) includes at least one alignment feature (Fig 1, 24) to mate with the at least one alignment feature of the housing (Fig 1, 20 - Column 3, Lines 29-30), when combined with Lu et al. such features will at least partially align the at least one electrical connection relative to the access window.

With respect to claim 3, the hosing of Lu et al. defines a Y-direction parallel to a length of the access window, and a X-direction perpendicular to a width of the access window. The placement of the alignment features of Crockett within the housing of Lu et al. inherently restricts the movement of the hard drive in each of the x, y, and z directions.

With respect to claims 4 and 5, Crockett further teaches that the alignment feature of the housing includes an alignment post (as illustrated in Fig 1, 20) defining a first tier having a first diameter and extending from a first major member of the housing (the base of element 16) and a second tier having a second diameter and extending from the first tier opposite the first major member of the housing, where the first diameter is greater than the second diameter, the alignment post configured to align

that at least one electrical connection point on the hard drive (20) of Lu et al. relative to the access window in the X-direction.

With respect to claim 6, Crockett further teaches that the at least one alignment feature of the housing (Fig 1, 20) further includes a second alignment post configured to align the at least one electrical connection point (22) relative to the access window in the X-direction.

With respect to claim 7, Crockett further discloses that the printed circuit board (Fig 1, 22 - when combined with Lu et al., the hard disc) comprises a mounting cavity (24) configured to receive the alignment post (20).

With respect to claim 8, Crockett further discloses that the at least one alignment feature (20) of the housing includes an alignment rib (Fig 1, 20 located on the front right side of 16), configured to align the at least one electrical connection point (Lu et al: 22) relative to the access window in the Y-direction.

With respect to claim 9, Crockett further discloses that the printed circuit board (Fig 1, 22 – when combined with Lu et al. disc drive) further includes an alignment slot (24) configured to receive the alignment rib (Crockett: Column 3, Lines 28-30).

With respect to claim 10, the combination of the alignment rib of Crockett and the housing of Lu et al. results in the rib being placed adjacent to the access window (Lu et al: subsequent front right corner of 30).

With respect to claim 11, Crockett further discloses that an alignment post (Crockett: Fig 1, 20) and when combined with the housing, disc drive, and connector of

Lu et al. (Lu et al: Fig 1, 30) configure to align the at least one electrical connection point (Lu et al: Fig 1, 22) relative to the access window in the X-direction.

With respect to claim 12, the combination of Lu et al. and Crockett describes the claimed invention but does not state a specific tolerance range for which the electrical connector (22) must align in the X and Y direction to the access window. It would have been obvious to one of ordinary skill in the art at the time the invention was made to utilize a tolerance range of +/-0.005 inches, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). The use of such a value would allow the hard disc to continue to operate without causing disconnection problems while sufficiently maintaining the device within the housing and could be determined by routine experimentation by one of ordinary skill in the art.

With respect to claims 13 and 14, Lu et al. further discloses that the housing includes a first major member (Fig 1, 30) that forms the access window and the at least one alignment feature of Crockett (attachment pillar - Fig 1, 20) when combined with the housing, and disc drive, and electrical connector of Lu et al. is configured to align the at least one electrical connection point (Lu et al.: Fig 3, 22) relative to the access window in a Z-direction (as defined by the height of the first and second tiers of 20) that is perpendicular to the first major member (Lu: Fig 1, 30).

With respect to claim 15, Crockett further illustrates that the attachment pillar (Fig 1, 20) defines a passage axially extending through the attachment pillar (as illustrated by the vertical dashed lines) and the combination of the Crockett alignment features and

Lu et al. disc drive further comprise an attachment device (smaller center radius of 24) inserted through the passage and into the housing (pillars 20 are considered part of the housing) to facilitate alignment of the at least one electrical connection point (Lu et al, Fig 1, 22) relative to the access window in the Z-direction.

With respect to claim 16, Crockett further discloses that the at least one alignment feature further includes at least one alignment post and a rib (Fig 1, 20 located in the rear right corner, Fig 1, 20 located in the front right corner, respectively) when in combination with the housing, drive, and window of Lu et al. is configured to align the at least one electrical connection point relative to the access window in the X and Y-directions respectively.

With respect to claim 17, Lu et al. discloses the use of a housing but fails to define a numerical length and width. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have made the length and width of the housing 6 inches and 5 inches respectively, since it has been held that discovering an optimum value of a result effective variable involves only routine skill in the art. In re Boesch, 617 F.2d 272, 205 USPQ 215 (CCPA 1980). Routine experimentation by one of ordinary skill in the art would create a housing of 6 inches in length and 5 inches in width as an ideal size capable of conforming to most any standard hard disk drive and further being capable of easily fitting within a standard desktop or notebook computer.

Response to Arguments

3. Applicant's arguments filed 4/19/2005 have been fully considered but they are not persuasive.

With respect to applicant's remarks referring to the applicant's amended claim language in claim 18 stating, "configured for use in an automated library system", the issue is not whether the reference discloses or suggests the capabilities described in the claims. Instead, the issue is whether the reference apparatus is capable of performing the recited function. Ex parte Cordova, 10 USPQ 2d 1949, 1950-51 (Bd. Pat. App. & Int. 1987). See also In re Swinehart, 429 F 2d 210, 212-213, 169 USPQ 226, 230-31 (CCPA 1971). Here the reference's (Lu's) structure is clearly capable of functioning in the manner set forth in the claims.

With respect to applicant's remarks regarding the use of alignment features, the applicant remarks on page 8 stating, "The ability of the hard disk to be automatically aligned with the cartridge window merely by interacting with the side walls of lower cover 30 renders any alignment features other than the existing side walls unnecessary". The examiner further points to applicant's remarks on page 8 stating, "the hard disk fits within insertion cartridge 1 in a relatively tight manner". The use of the language "relatively tight manner" suggests that the applicant admits there is in fact room in which the hard disk drive may move within the cavity of the housing. Therefore the use of alignment features is justified (necessary) in order to keep the hard disk drive within the housing in a tight manner.

With respect to applicant's remarks that the addition of alignment features would "increase the overall size of the portable computer", the examiner respectfully notes that there are a plethora of negative reasons to not combine two references, however the examiner is only required to meet the limitation as set forth in Graham v. Deer which has been accomplished in the previous office action. To review the examiner detailed that the Lu reference contains the housing (interior cavity), access window, and disk drive, but fails to teach the alignment features. Crockett teaches the use of such alignment features in an interior cavity. The examiner further set forth motivation. Thus the examiner has met all the requirements in making a proper 103 rejection regardless of potential drawbacks.

With respect to applicants remarks that both of the references fail to teach or suggest the motivation used by the examiner when combining the aligning features of Crockett with the housing of Lu, the examiner respectfully points to Crockett, Column 3, Lines 27-30, specifically the phrase "isolating members 24". The mere definition of "isolating" ("to set apart from others") suggests that Crockett had placed the support members (20) within the housing to set apart the display from the housing itself for at least the reason that in the event that there were vibrations or shock, the display would not be damaged. Additionally the examiner cites the conventionality of using the term "isolation" with respect to vibration dampening. Such terminology includes, "vibration isolation", "isolators", etc.

With respect to the applicants remarks regarding the "rib", the examiner has considered the applicant's definition of "a part or piece similar to a rib [a long bone in a

vertebrae] and serving to shape or support" but contends that the definition given does not, "include round or relatively thick structures" as the size, and "thickness" of the rib is not described in the definition given. In other words, the definition given by the applicant does not preclude the support members (20) taught by Crockett. The examiner cites present office action Fig 1 below (Illustration taken from Merriam-Webster Online www.m-w.com). As illustrated, the rib is clearly round, and relatively thick.

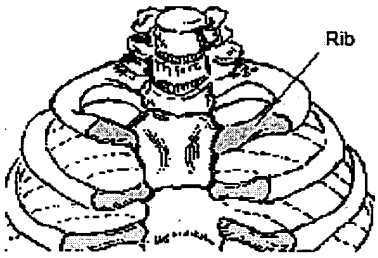

Fig 1

Additionally, the examiner also directs the applicant to the specification filed 12/1/2003, page 22, lines 17-23 where applicant states that the alignment posts, ribs, and attachment pillars "may take on a variety of configurations".

Finally, with respect to applicant's remarks that each of the alignment features should be given due weight, the examiner again sites the specification filed 12/1/2003, page 22, Lines 17-23 where applicant states that the alignment posts, ribs, and attachment pillars "may take on a variety of configurations". Further the examiner believes that it is justified, based on the claim language, to consider the support members (20) of Crockett as the alignment posts, ribs, and attachment pillars. As an

example, the examiner cites that in claim 1 the applicant states, "at least one alignment feature" which the examiner considered to be one of the support members (20). Later in claim 14 (which depends on claim 13, consequently depending on claim 1) the applicant states that the at least one alignment feature includes an attachment pillar which the examiner has read onto 1 of the 4 support members of Crockett. Again later in claim 16 (which ultimately depends on 14), the applicant states that, "the at least one alignment feature further includes at least one alignment post" which the examiner has read onto a second of the 4 support members of Crockett. Again in claim 16 the applicant also states the use of an alignment rib, which the examiner has read onto a 3rd of the 4 support members of Crockett. Simply supplying a different name for each of the support members does not suffice in overcoming the rejection set forth by the examiner.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Zachary M. Pape whose telephone number is 571-272-2201. The examiner can normally be reached on Mon. - Thur. & every other Fri. (8:00am - 5:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Lynn Feild can be reached at 571-272-2092. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

ZMP

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